



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/062,110	02/01/2002	Jeffrey A. Dean	Google-23 (GP-054-00-US)	9972
26479	7590	07/13/2004	EXAMINER	
STRAUB & POKOTYLO 620 TINTON AVENUE BLDG. B, 2ND FLOOR TINTON FALLS, NJ 07724			NGUYEN, CINDY	
			ART UNIT	PAPER NUMBER
			2171	2

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/062,110

Applicant(s)

DEAN ET AL.

Examiner

Cindy Nguyen

Art Unit

2171

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 2171

### DETAILED ACTION

This is in response to application filed on 02/01/02 in which claims 1-25 are presented for examination.

#### *1. Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 3 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 3, all the limitation of this claim was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors at the time the application was filed, had possession of the claimed invention.

#### *2. Claim Rejections - 35 USC § 101*

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claims 1-25, the claimed invention are directed to non-statutory subject matter. Specifically, the claims fail to recite subject matter which useful process, machine, manufacture

Art Unit: 2171

or composition of matter or any new and useful improvement. It is a conceptual description of a method or means, as distinct, for instance from a computer implemented method or means.

### **3. *Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**4. Claims 1, 2, 4-6, 9, 13, 15-20, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kogeneck et al. (U.S 5404514) (Kogeneck) in view of Turtle et al. (U.S 5488725) (Turtle).**

Regarding claims 1 and 24, Kogeneck discloses: a method and an apparatus for determining equivalent descriptions for an information need comprising: identifying a candidate pair of equivalent descriptions by locating two queries that refer to the same information need (an information need in Kogeneck corresponds to a term, which may be a phrase col. 1, lines 58-64; calculating a score for the

Art Unit: 2171

candidate pair dependent on the frequency with which the candidate pair occurs in the list as constructing for each term a ranked list of companions of said term which list contains the terms that appear in the same documents as said term in order of the sum of the weights of the companions over all documents (col. 2, lines 7-23, Kagenneck).

identifying a list of queries issued by one or more users (col. 8, lines 42 to col. 9, lines 30, Kagenneck). Kagenneck is directed to terms within a single query, but a list of queries terms act in a search like a list of queries, but the terms can also be distinguished from the query in which the appear, taken as a whole. Even though they may be in the same natural language query.

However, Kagenneck didn't disclose: determining that each half of the candidate pair is an equivalent description for the information need if the score is above a defined threshold. On the other hand, Turtle discloses: determining that each half of the candidate pair is an equivalent description for the information need if the score is above a defined threshold (col. 19, lines 62 to col. 20, lines 7, Turtle). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include the step for determining that each half of the candidate pair is an equivalent description for the information need if the score is above a defined threshold in the system of Kagenneck as taught by Turtle. The motivation being to have a method computed the probability for each concept/document pair. The result is normalized by the number of concepts in the query to determine the overall probability estimate that the document satisfies the information requirement set forth in the query (col. 19, lines 37 to col. 20, lines 7, Turtle)

Regarding claim 9, all the limitations of this claim have been noted in the rejection of claim 1. It is therefore rejected as set forth above. In addition, Kagenneck/Turtle discloses:

Art Unit: 2171

identifying a plurality of descriptions that are associated with a plurality of information needs (col. 2, lines 7-24, Kagineck).

Regarding claim 17, all the limitations of this claim have been noted in the rejection of claim 1. It is therefore rejected as set forth above.

Regarding claim 25, all the limitations of this claim have been noted in the rejection of claim 24. It is therefore rejected as set forth above. In addition, Kagineck/ Turtle discloses: at least one memory having program instructions (fig. 1 and 9 and corresponding text, Kagineck) and at least one processor configured to execute the program instructions to perform the operations (col. 20, lines 50 to col. 21, lines 18, Turtle).

Regarding claims 2 and 13, all the limitations of these claims have been noted in the rejection of claims 1 and 9 above, respectively. In addition, Kagineck/ Turtle wherein identifying a candidate pair comprises: locating two queries that contain at least one term in common (col. 17, lines 31-54, Turtle) and identifying as a candidate pair the portions of the two queries that are not in common (col. 18, lines 36-53, Turtle). The motivation being to have a method computed the probability for each concept/document pair. The result is normalized by the number of concepts in the query to determine the overall probability estimate that the document satisfies the information requirement set forth in the query (col. 19, lines 37 to col. 20, lines 7, Turtle)

Regarding claims 4, 15 and 18, all the limitations of these claims have been noted in the rejection of claims 1 and 9 and 17. In addition, Kagineck/ Turtle discloses: wherein calculating a score comprises: determining a first frequency with which the candidate pair occurs within the list (col. 7, lines 34 to col. 8, lines 40, Kagineck); determining a second frequency with which one half of the

Art Unit: 2171

candidate pair occurs within the list (col. 5, lines 5-50, Kogeneck); calculating a score based on a ratio of the first frequency and the second frequency (col. 5, lines 51 to col. 6, lines 21, Kogeneck).

Regarding claims 5 and 19, all the limitations of these claims have been noted in the rejection of claims 1 and 17 above, respectively. In addition, Kogeneck/ Turtle discloses: further comprising excluding any candidate pair with a frequency of occurrence in the list below a defined threshold (col. 21, lines 19-40, Turtle).

Regarding claims 6 and 20, all the limitations of these claims have been noted in the rejection of claims 1 and 17 above, respectively. In addition, Kogeneck/ Turtle discloses: further comprising excluding any candidate pair wherein one half of the candidate pair contains a misspelled term (col. 13, lines 14-23, Turtle).

Regarding claim 16, all the limitations of this claim have been noted in the rejection of claims 9 and 15. It is therefore rejected as set forth above. In addition, Kogeneck/ Turtle discloses: determining a third frequency with which the other half of the candidate pair occurs within the plurality of descriptions (col. 5, lines 5 to col. 6, lines 67, Kogeneck); calculating a score base on a ratio of the first frequency and the smaller of the second and third frequencies (col. 5, lines 5 to col. 6, lines 67, Kogeneck).

**5. Claims 3, 14 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over**

**Kogeneck et al. (U.S 5404514) (Kogeneck) in view of Turtle et al. (U.S 5488725) (Turtle) and further in view of McGreevy (U.S 6740981).**

Regarding claims 3 and 14, all the limitations of these claims have been noted in the rejection of claims 1 and 9 above, respectively. However, Kogeneck/ Turtle didn't disclose: wherein identifying a candidate pair comprises: identifying, in a first description, a term T1 having character Ci, where I=1 through n; identifying, in a second description, a sequence of n

Art Unit: 2171

terms, T21, T22...T2n; and determining that term T1 and terms T21, T22...T2n are a candidate pair if each Ci matches the first letter of T2i (col. 10, lines 42-col. 11, lines 65, McGreevy).

Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include the step for identifying the first and second description as above in the combination system of Kageneck/ Turtle as taught by McGreevy. The motivation being enable the system process to determine a directional contextual metric for each one of the term pairs by starting term T1 is selected and identified (col. 10, lines 42-col. 11, lines 65, McGreevy)

Regarding claim 23, all the limitations of this claim have been noted in the rejection of claims 1 and 2 above. It is therefore rejected as set forth above.

#### **6. Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cindy Nguyen whose telephone number is 703-305-4698. The examiner can normally be reached on M-F: 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 703-308-1436. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

*CN*

Cindy Nguyen  
July 6, 2004

*W m e*  
WAYNE AMSBURY  
PRIMARY PATENT EXAMINER